INDEX TO VOLUME XXXVIII.

SUBJECT INDEX.

A

Acid-Resisting Iron, High-Silicon Cast Iron or, 189.
Age-Hardening of Alloys, 147.
Alloy Cast Iron, Future of, 430.
Alloys, Age-Hardening of, 147.
Alloys, Aluminium Casting, 431, 437, 458.
Alloys Containing Phosphorus, Influence of Nickel on Iron, Carbon, Silicon, 315, 339.
Alloys, Influence of Sodium on the Mechanical Properties of Aluminium Copper, 204.
Alloys, Welding Nickel-Chrome, 310.
Aluminium Casting Alloys, 431, 437, 458.
Aluminium Founding, Some Difficulties Encountered in, 132.
American Foundrymen's Association, 164, 294.
American Iron and Steel Institute, 474.
American Output of Steel and Rolled Products, 1927, 382.
American Scientist Honoured, 31.
Apprentice, Theoretical and Practical Training of the Foundry, 330.
Australia, Iron and Steel Industry of, 470.

B

Banbury Mixer Side, Making a, 306.
Barcelona, Spanish Congress at, 293.
Baths, Competition of Foreign, 110.
Baths, Imported Cast-Iron Porcelain, Enamelled, 133.
Behaviour of Materials at High Temperatures, 127.
Bessemer Gold Medal, Presentation of, 333.
Black Heart of Malleable Iron, 191.
Blast-Furnace Practice in Natal, 319, 337.
Book of Hiram, 93.
Bradford Foundry Library, 97.
Brass, Common Defects in, 152.
Britain's Largest Jar-Ram Squeeze Moulding Machine, 326.
British Facilities for Foundry Training, 428.
British Industries Fair, 133, 155, 366.
Bronze Melting Furnaces, 26.

C

Cable, Causes of Failure of Wrought-Iron Chain and, 349, 373.
Calcium Carbide, Methods of Testing, 163.
Carriage, Rail Conditions of, 372.
Carron Foundry Tragedy, 322.
Casting, 72.
Casting, Interesting Steel, 294.
Casting, Making a Test-Column, 219.
Casting, Mighty, 332.
Casting, Seventeenth Century, 244.
Castings, Export of Belgian, 216.
Castings, Factors in the Design of, 236.
Castings, Making Steel, 126.
Castings, Malleable, 423, 454, 478.
Castings, Production of Some Important Grey-Iron, 411.
Castings, Selection of Pig-Irons and Similar Raw Materials Used in the Manufacture of Grey-Iron, 149.
Castings, Shrinkage Holes in Small Grey Iron, 55.
Casting, Strip, 3.
Cast Iron at Very Low Temperature, Strength of, 124.
Cast Iron by Weight and Volume, Structural Composition of, 224.
Cast Iron, Comparative Tests on Malleable, 332.
Cast Iron Containing Phosphorus, Resistance to Wear of, 25.
Cast Iron, Electric Resistance of, 303.
Cast Iron, Future of Alloy, 430.
Cast Iron, High-Grade, 226.
Cast Iron, Influence of Nickel and Chromium on, 100.
Cast Iron, Nickel in, 285, 314.
Cast Iron or Acid-Resisting Iron, High-Silicon, 189.
Cast-Iron Pipes at the "New" Works, Making, Staveley Coal & Iron Company, Limited, 123.
Cast-Iron Pipes, New Method of Making, 412.
Cast-Iron Porcelain-Enamelled Baths, Imported, 133.
Cast Iron Spraying and Burning, 66.
Cast Iron, Strength and Structure of, 8, 47.
Cast-Iron, Talk on, 97.
Cast-Iron Tanks, 216.
Chains, Causes of Failure of Iron, 484.
Chemical Testing of Iron and its Alloys, 88.
Chilled Iron Rolls, 259, 277, 295.
Chrome Steel, Cylinders-Nitrated, 314.
Cohesibility of Rammed Sand, 445.
Coke Ovens, Newcastle Foundrymen Visit Marley Hill, 353.
Coke, Properties of Blast-Furnace, 188.
Coke Ratios Too High? Are Our, 13.
Cold Blast Iron for Mortar Mills, 110.
Colorimetric Methods in the Foundry Laboratory, 460.
Competition of Foreign Baths, 110.
Conference, Leicester, 404.
Congress at Barcelona, Spanish, 293.
Continental Steel Trust, 156, 188, 217, 250.
Controllers for Foundry Cranes and Hoists, Slow Motion, 117.
Convention of the A.F.A., Programme for the Philadelphia, 144.
Core Binders, Comparison of, 93.
Cores, Mechanical Aspect of Oil-Sand, 299.
Cores, Sea Sand, 145.

Correspondence:—

A C.I. Shoot, 22.
Aluminium Alloy of Standard Analysis, 444.
American Practice in Britain, 72.
An Appreciation, 254.
Birth of the Cupola and the Wilkinsons, 240.
Carron Works, 180.
Re Cast-Iron Shoot, 72.
Clean Start, 468.
Coke Ratios, 22.
Core Oil Mixtures, 42.
Cupola Economics, 42.
Cupola Melting, 22.
Educational Systems, 108.
Electrode Consumption and Mechanical Charging, 230.
Experimental Foundry, 54.
Foundry Education, 313.
How a White-Metalled Bearing Wears, 22.
Iron Making in the Middle Ages, 444.
Lanz Perlit Versus Thyssen-Emmel Litigation, 346.
Local Authorities and the Smoke Problem, 481.
Manganese Sulphur Ratio in Malleable Cast Iron, 442.
Metallurgical Position of British Foundries, 90.
Motor-Cycle Race Performance, 468.
Oil Sand and Motor Cylinders, 2.
Pearlitic Cast Iron and Babbit Metal, 90.
Pearlitic Structure, 126.
Perfect Casting, 162.
Pipe Moulding Proposition, 241.
Point in Nomenclature, 313.
Railway Passenger-Carriage Charges, 366.
Record Breaking and Engine Parts, 162.
Selections of Pig-Irons, 180.
Skin on Brass Castings, 146.
Stabilising Tin Prices, 90.
Steel-mix Grey Cast Irons, 108.
"Studying Journeys," 442.
Where to Start? 422, 444.

Corrosion of Metals, 80.
Costing, Iron Foundry, 475.
Cranes and Hoists, Slow Motion Controllers for Foundry, 117.
Crystallisation of Non-Ferrous Metals, 243.
Cupola, Heat Balance of the, 387.
Cupola Practice, 395.
Cupola Practice, Some Experiments on the Reaction $2CO \rightleftarrows C + CO_2$, with Special Reference to Fuel Economy in, 405.
Cupola Refractories, 367.
Curve, Foundry Business Trend, 217.
Customs of the Trade, 323.
Cylinder Metal, Talk on, 385.
Cylinders, Nitrated Chrome Steel, 314.

D

Demag Revolving Electric Furnace, 239.
Derwent Foundry, 254.
Design and Moulding, 384.
Design of Castings, Factors in the, 236.
Development of Standardisation and Simplification, 368.
Draughtsman and Foundry Knowledge, 394.
Duty on Pig-Iron, American, 148.

E

Electric Fire Foundry Visited, 406.
Electric Furnace, Demag Revolving, 239.
Electric Furnace Developments, 378.
Electric Furnace Examined, Potentialities of the, 101.
Electricity in the Modern Foundry, 444.
Electric Melting, 81.
Electric Melting Furnaces, 23.
Electric Power in the Foundry, 427.
Electric Resistance of Cast Iron, 303.
Electrolytic Iron, 118.
Electro-Metallurgy of Steel for Foundry Use, 61.
Enamelling, Wet Process Vitreous Porcelain, 66, 134.
Engineer and the Foundry, 135.
Engineering and Allied Trades, 404.
Engineer's Standard? Is the Foundry Approaching the, 10.
Equipment and Supplies Association, Foundry Trades, 199.
Equipment, Example of Modern Sand-Blasting, 152.
Experiences in Practical Moulding, Some, 185, 314.
Experiments on the Reaction $2CO \rightleftarrows C + CO_2$, with Special Reference to Fuel Economy in Cupola Practice, Some, 405.
Export of Belgian Castings, 216.

F

Factors in the Design of Castings, 236.
Failure of Wrought-Iron Chain and Cable, Causes of, 349, 373.
Fair, British Industries, Birmingham Section, 113.
Fifty Years' Service, 74.
Firing Refractory Materials with Oil, Practical Experience of, 198.
Founding, Mediæval, 132.
Founding, Some Difficulties Encountered in Aluminium, 132.
Foundries, Reconstruction of Old, 242.
Foundries, Southern, 237.
Foundry Approaching the Engineer's Standard? Is the, 10.
Foundry Business, Trend Curve, 217.
Foundry Conference in Barcelona, 127.
Foundry Congress, Spanish, 76.
Foundry Costing, Iron, 475.
Foundry Costs, Discussion on, 99.
Foundry, Derwent, 254.
Foundry, Electricity in the Modern, 444.
Foundry, Electric Power in the, 427.
Foundry Industry, Changes in Rail Rates affecting the, 466.
Foundry Knowledge, Draughtsman and, 394.
Foundry Laboratory, Colorimetric Methods in the, 460.
Foundry Layout, 360.
Foundryman, Training the Young, 245.
Foundrymen Criticise American Methods, Lancashire, 48.
Foundrymen Visit Machine Tool Works, Yorkshire, 276.
Foundry, Metal Losses in the, 138.
Foundry Moulding Boxes, 347.
Foundry Pig-Iron, 153.
Foundry Practice, Session on, 99.
Foundry Practice, Variables in Steel, 407, 436.
Foundry Purchasing, 14, 102, 128, 156, 183, 248, 273, 341.
Foundry, some methods of Production in a Modern Malleable Iron, 7.
Foundry, The Engineer and the, 135.
Foundry, Theory or Practice in Grey-Iron, 433, 461.
Foundry Trades Equipment and Supplies Association, 199.
Foundry Training, British Facilities for, 428.
Foundry Visited, Electric Fire, 406.
Foundry? What has Science done for the, 414.
Fuel, Pulverised, 348.
Furnace, Demag Revolving Electric, 239.
Furnace Developments, Electric, 378.
Furnace Examined, Potentialities of the Electric, 101.
Furnace for Melting Light Alloys, An Oil-Fired Reverberatory, 31.
Furnace Plant, North-East Coast Foundrymen Visit Blast, 29.
Furnace, Practice in Natal, Blast, 319, 337.
Furnace Problems, Some, 378.
Furnaces, Bronze Melting, 26.
Furnaces, Electric Melting, 23.
Furnaces, New Gas-Fired and Oil-Fired, 181.
Future of Alloy Cast Iron, 430.

G

Gas at the British Industries Fair, 144.
Gases in Metals, Especially of the Oxygen in Steel, An Improved Method for the Rapid Determination of, 358.
Gases in Metals, International Co-operation in Determining, 92.
Gear Blanks, Moulding and Casting of Small Pulleys and, 205.

INDEX TO VOLUME XXXVIII.

SUBJECT INDEX.

A

Acid-Resisting Iron, High-Silicon Cast Iron or, 189.
Age-Hardening of Alloys, 147.
Alloy Cast Iron, Future of, 430.
Alloys, Age-Hardening of, 147.
Alloys, Aluminium Casting, 431, 437, 458.
Alloys Containing Phosphorus, Influence of Nickel on Iron, Carbon, Silicon, 315, 339.
Alloys, Influence of Sodium on the Mechanical Properties of Aluminium Copper, 204.
Alloys, Welding Nickel-Chrome, 310.
Aluminium Casting Alloys, 431, 437, 458.
Aluminium Founding, Some Difficulties Encountered in, 132.
American Foundrymen's Association, 164, 294.
American Iron and Steel Institute, 474.
American Output of Steel and Rolled Products, 1927, 382.
American Scientist Honoured, 31.
Apprentice, Theoretical and Practical Training of the Foundry, 330.
Australia, Iron and Steel Industry of, 470.

B

Banbury Mixer Side, Making a, 306.
Barcelona, Spanish Congress at, 293.
Baths, Competition of Foreign, 110.
Baths, Imported Cast-Iron Porcelain, Enamelled, 133.
Behaviour of Materials at High Temperatures, 127.
Bessemer Gold Medal, Presentation of, 333.
Black Heart of Malleable Iron, 191.
Blast-Furnace Practice in Natal, 319, 337.
Book of Hiram, 93.
Bradford Foundry Library, 97.
Brass, Common Defects in, 152.
Britain's Largest Jar-Ram Squeeze Moulding Machine, 326.
British Facilities for Foundry Training, 428.
British Industries Fair, 133, 155, 366.
Bronze Melting Furnaces, 26.

C

Cable, Causes of Failure of Wrought-Iron Chain and, 349, 373.
Calcium Carbide, Methods of Testing, 163.
Carriage, Rail Conditions of, 372.
Carron Foundry Tragedy, 322.
Casting, 72.
Casting, Interesting Steel, 294.
Casting, Making a Test-Column, 219.
Casting, Mighty, 332.
Casting, Seventeenth Century, 244.
Castings, Export of Belgian, 216.
Castings, Factors in the Design of, 236.
Castings, Making Steel, 126.
Castings, Malleable, 423, 454, 478.
Castings, Production of Some Important Grey-Iron, 411.
Castings, Selection of Pig-Irons and Similar Raw Materials Used in the Manufacture of Grey-Iron, 149.
Castings, Shrinkage Holes in Small Grey Iron, 55.
Casting, Strip, 3.
Cast Iron at Very Low Temperature, Strength of, 124.
Cast Iron by Weight and Volume, Structural Composition of, 224.
Cast Iron, Comparative Tests on Malleable, 332.
Cast Iron Containing Phosphorus, Resistance to Wear of, 25.
Cast Iron, Electric Resistance of, 303.
Cast Iron, Future of Alloy, 430.
Cast Iron, High-Grade, 226.
Cast Iron, Influence of Nickel and Chromium on, 100.
Cast Iron, Nickel in, 285, 314.
Cast Iron or Acid-Resisting Iron, High-Silicon, 189.
Cast-Iron Pipes at the "New" Works, Making, Staveley Coal & Iron Company, Limited, 123.
Cast-Iron Pipes, New Method of Making, 412.
Cast-Iron Porcelain-Enamelled Baths, Imported, 133.
Cast Iron Spraying and Burning, 66.
Cast Iron, Strength and Structure of, 8, 47.
Cast-Iron, Talk on, 97.
Cast-Iron Tanks, 216.
Chains, Causes of Failure of Iron, 484.
Chemical Testing of Iron and its Alloys, 88.
Chilled Iron Rolls, 259, 277, 295.
Chrome Steel, Cylinders-Nitrated, 314.
Cohesibility of Rammed Sand, 445.
Coke Ovens, Newcastle Foundrymen Visit Marley Hill, 353.
Coke, Properties of Blast-Furnace, 188.
Coke Ratios Too High? Are Our, 13.
Cold Blast Iron for Mortar Mills, 110.
Colorimetric Methods in the Foundry Laboratory, 460.
Competition of Foreign Baths, 110.
Conference, Leicester, 404.
Congress at Barcelona, Spanish, 293.
Continental Steel Trust, 156, 188, 217, 250.
Controllers for Foundry Cranes and Hoists, Slow Motion, 117.
Convention of the A.F.A., Programme for the Philadelphia, 144.
Core Binders, Comparison of, 93.
Cores, Mechanical Aspect of Oil-Sand, 299.
Cores, Sea Sand, 145.

Correspondence:—

A C.I. Shoot, 22.
Aluminium Alloy of Standard Analysis, 444.
American Practice in Britain, 72.
An Appreciation, 254.
Birth of the Cupola and the Wilkinsons, 240.
Carron Works, 180.
Re Cast-Iron Shoot, 72.
Clean Start, 468.
Coke Ratios, 22.
Core Oil Mixtures, 42.
Cupola Economics, 42.
Cupola Melting, 22.
Educational Systems, 108.
Electrode Consumption and Mechanical Charging, 230.
Experimental Foundry, 54.
Foundry Education, 313.
How a White-Metalled Bearing Wears, 22.
Iron Making in the Middle Ages, 444.
Lanz Perlit Versus Thyssen-Emmel Litigation, 346.
Local Authorities and the Smoke Problem, 481.
Manganese Sulphur Ratio in Malleable Cast Iron, 442.
Metallurgical Position of British Foundries, 90.
Motor-Cycle Race Performance, 468.
Oil Sand and Motor Cylinders, 2.
Pearlitic Cast Iron and Babbit Metal, 90.
Pearlitic Structure, 126.
Perfect Casting, 162.
Pipe Moulding Proposition, 241.
Point in Nomenclature, 313.
Railway Passenger-Carriage Charges, 366.
Record Breaking and Engine Parts, 162.
Selections of Pig-Irons, 180.
Skin on Brass Castings, 146.
Stabilising Tin Prices, 90.
Steel-mix Grey Cast Irons, 108.
"Studying Journeys," 442.
Where to Start? 422, 444.

Corrosion of Metals, 80.
Costing, Iron Foundry, 475.
Cranes and Hoists, Slow Motion Controllers for Foundry, 117.
Crystallisation of Non-Ferrous Metals, 243.
Cupola, Heat Balance of the, 387.
Cupola Practice, 395.
Cupola Practice, Some Experiments on the Reaction $2CO \rightleftarrows C + CO_2$, with Special Reference to Fuel Economy in, 405.
Cupola Refractories, 367.
Curve, Foundry Business Trend, 217.
Customs of the Trade, 323.
Cylinder Metal, Talk on, 385.
Cylinders, Nitrated Chrome Steel, 314.

D

Demag Revolving Electric Furnace, 239.
Derwent Foundry, 254.
Design and Moulding, 384.
Design of Castings, Factors in the, 236.
Development of Standardisation and Simplification, 368.
Draughtsman and Foundry Knowledge, 394.
Duty on Pig-Iron, American, 148.

E

Electric Fire Foundry Visited, 406.
Electric Furnace, Demag Revolving, 239.
Electric Furnace Developments, 378.
Electric Furnace Examined, Potentialities of the, 101.
Electricity in the Modern Foundry, 444.
Electric Melting, 81.
Electric Melting Furnaces, 23.
Electric Power in the Foundry, 427.
Electric Resistance of Cast Iron, 303.
Electrolytic Iron, 118.
Electro-Metallurgy of Steel for Foundry Use, 61.
Enamelling, Wet Process Vitreous Porcelain, 66, 134.
Engineer and the Foundry, 135.
Engineering and Allied Trades, 404.
Engineer's Standard? Is the Foundry Approaching the, 10.
Equipment and Supplies Association, Foundry Trades, 199.
Equipment, Example of Modern Sand-Blasting, 152.
Experiences in Practical Moulding, Some, 185, 314.
Experiments on the Reaction $2CO \rightleftarrows C + CO_2$, with Special Reference to Fuel Economy in Cupola Practice, Some, 405.
Export of Belgian Castings, 216.

F

Factors in the Design of Castings, 236.
Failure of Wrought-Iron Chain and Cable, Causes of, 349, 373.
Fair, British Industries, Birmingham Section, 113.
Fifty Years' Service, 74.
Firing Refractory Materials with Oil, Practical Experience of, 198.
Founding, Mediæval, 132.
Founding, Some Difficulties Encountered in Aluminium, 132.
Foundries, Reconstruction of Old, 242.
Foundries, Southern, 237.
Foundry Approaching the Engineer's Standard? Is the, 10.
Foundry Business, Trend Curve, 217.
Foundry Conference in Barcelona, 127.
Foundry Congress, Spanish, 76.
Foundry Costing, Iron, 475.
Foundry Costs, Discussion on, 99.
Foundry, Derwent, 254.
Foundry, Electricity in the Modern, 444.
Foundry, Electric Power in the, 427.
Foundry Industry, Changes in Rail Rates affecting the, 466.
Foundry Knowledge, Draughtsman and, 394.
Foundry Laboratory, Colorimetric Methods in the, 460.
Foundry Layout, 360.
Foundryman, Training the Young, 245.
Foundrymen Criticise American Methods, Lancashire, 48.
Foundrymen Visit Machine Tool Works, Yorkshire, 276.
Foundry, Metal Losses in the, 138.
Foundry Moulding Boxes, 347.
Foundry Pig-Iron, 153.
Foundry Practice, Session on, 99.
Foundry Practice, Variables in Steel, 407, 436.
Foundry Purchasing, 14, 102, 128, 156, 183, 248, 273, 341.
Foundry, some methods of Production in a Modern Malleable Iron, 7.
Foundry, The Engineer and the, 135.
Foundry, Theory or Practice in Grey-Iron, 433, 461.
Foundry Trades Equipment and Supplies Association, 199.
Foundry Training, British Facilities for, 428.
Foundry Visited, Electric Fire, 406.
Foundry? What has Science done for the, 414.
Fuel, Pulverised, 348.
Furnace, Demag Revolving Electric, 239.
Furnace Developments, Electric, 378.
Furnace Examined, Potentialities of the Electric, 101.
Furnace for Melting Light Alloys, An Oil-Fired Reverberatory, 31.
Furnace Plant, North-East Coast Foundrymen Visit Blast, 29.
Furnace, Practice in Natal, Blast, 319, 337.
Furnace Problems, Some, 378.
Furnaces, Bronze Melting, 26.
Furnaces, Electric Melting, 23.
Furnaces, New Gas-Fired and Oil-Fired, 181.
Future of Alloy Cast Iron, 430.

G

Gas at the British Industries Fair, 144.
Gases in Metals, Especially of the Oxygen in Steel, An Improved Method for the Rapid Determination of, 358.
Gases in Metals, International Co-operation in Determining, 92.
Gear Blanks, Moulding and Casting of Small Pulleys and, 205.

670.5 v.38

German Foundrymen's Technical Association, Annual Meeting of the, 273.
German Foundrymen to Meet in Danzig, 356.
Grading the Job to Ensure Equitable Payment, 457.
Grey-Cast Irons, with Special Reference to their Treatment in the Foundry, Manufacture of Steel, Mix, 77.
Grey-Iron Castings, Production of some Important, 411.
Grey-Iron Foundry, Theory or Practice in, 433, 461.

H

Handling Castings with Lifting Magnets, 300.
Hand-to-Mouth! 278.
Heat Balance of the Cupola, 387.
Heterogeneity of Steel Ingots, Second Report on the, 354, 369, 389.
High-Chromium Cast-Iron Rolls, 94.
High-Grade Cast Iron, 226.
High-Silicon Cast Iron or Acid-Resisting Iron, 189.
Hiram, Book of, 93.

I

Improving the Small Business, 155.
Industrial Welfare Society, 70.
Industries, Safeguarding of, 464.
Industry, Vanished, 109.
Influence of Nickel and Chromium on Cast Iron, 100.
Influence of Nickel on Iron-Carbon-Silicon Alloys Containing Phosphorus, 315, 339.
Influence of Sodium on the Mechanical Properties of Aluminium Copper Alloys, 204.
Ingot Pouring and Stripping at the Fordson Works, 192.
Ingots, Second Report on the Heterogeneity of Steel, 354, 389.
Inspection Bugbear, 148.
Institute of British Foundrymen, 16, 27, 29, 38, 41, 60, 64, 72, 75, 81, 98, 111, 146, 190, 200, 210, 254, 258, 300, 312, 322, 328, 331, 352, 364 414, 430, 438, 447, 462, 469, 471.
Institution of Civil Engineers, 400.
Institute of Metals, 72, 80, 97, 127, 165, 167, 169, 290, 329, 386, 466.
Interesting Steel Casting, 294.
International Co-operation in Determining Gases in Metals, 92.
International Ferro-Silicon Syndicate, 418.
International Gathering, 272.
Iron and its Alloys, Chemical Testing of, 88.
Iron and Steel Industry and the Railways, 127.
Iron and Steel Institute, 54, 168, 272, 333.
Iron and Steel Manufacturers, National Federation of, 292.
Iron and Steel Production, 66, 124, 288, 297.
Iron, Black Heart of Malleable, 191.
Iron, Electrolytic, 118.
Iron Foundries, Selection and Use of Refractories for, 43.
Iron Foundry Costing, 475.
Iron Foundry Practice, Notes on, 75.
Iron Foundry, Some Methods of Production in a Modern Malleable, 7.
Iron, Malleable, 301.
Irons, Modern Refined, 30.
Iron Trade, Father of the, 184.
Is the Foundry Approaching the Engineer's Standard? 10.

J

Jobbing Patternshops, 166.
"Jolt Ramming," 64.

K

Kryn and Lahy Concern, New, 427.

L

Laboratory, Colorimetric Methods in the Foundry, 460.
Lancashire Foundrymen Criticise American Methods, 48.

Leaders:—

Advance of Refined Irons, 345.
Burden of Taxation, 197.
Can It Be Done? 21.
Case for Co-operation, 215.
Clean Start, 421.
Coming Divorce, 125.
Co-operation Desired, 327.
Cupola Coke, 443.
Does Industry Care? 271.
Education for Industry, 403.
Exchange Papers, 37.
Great Britain's Place in the Sun, 21.
Grey Iron Position in America, 291.
Group Costing, 53.
How is Trade? 143.
Imitating America, 383.
Industrial Co-operation, 37.
Industrial Welfare and the Heavy Industries, 53.
Industry and Education, 161.
Inherent Properties of Cast Iron, 89.
International Testing, 143.
Introspective, 1928, 1.
Invaluable Opportunity, 383.
Invention and Discovery, 345.
Iron and Steel Institute's May Meeting, 311
Leicester Conference, 253.
Lessons from Failures, 179.
Limiting the Liability of the Foundry, 311.
Literature of Cast Iron, 327.
Metallurgical Progress in Foundry Matters, 71.
New Angle for Research, 197.
New Specification, 253.
Nickel Cast Iron, 291.
Obsolescence, 107.
Our Industrial Accident Prevention, 71.
Precept and Practice, 89.
Provision of Industrial Capital, 421.
Rapprochement, 179.
Reason Why, 161.
Riddle of the Sands, 107.
Significant Pronouncement, 125.
Slight Recognition, 443.
Spanish Foundry Congress, 271.
Tested System, 235.
Theory v. Practice, 467.
Use and Abuse of "Service," 365.
Value of Conferences, 365.
Where the Fallacy Lies, 235.
Where to Start? 403.
Winning the Industrial Race, 215.
Leicester Conference, 346.
Loam Cores and Patterns, Horizontally-Sweeping, 32.
Losses in the Foundry, Metal, 138.

M

Machine Moulding, 11.
Machines, Portable Foundry and Patternshop, 252.
Machinist in the Pattern Shop, 13.
Machine Tool Trade Association. 247.
Magnets, Handling Castings with Lifting, 300.
Magnet Steel, Permanent, 24.
Making a Test-Column Casting, 219.
Making Steel Castings, 126.
Malleable Castings, 423, 454, 478.
Malleable Cast Iron, Comparative Tests on, 332.
Malleable Iron, 54, 301.
Malleable Iron, Black Heart of, 191.
Malleable Iron Fittings, 184.
Man and the Job, 286.
"Manganese Bronze," 41.
Manganese in the United States in 1927, 112.
Manufacture of Pig-Iron in Natal, 284.
Manufacture of Steel-Mix Grey-Cast Irons, with Special Reference to their Treatment in the Foundry, 77.
Marine Patternmaking, Note on, 174.
Materials at High Temperature, Behaviour of, 127.
Mechanical Aspect of Oil Sand Cores, 299.
Mediæval Founding, 132.
Metal Extrusion, 52.
Metal Losses in the Foundry, 138.
Metallurgy, Research Developments in Non-Ferrous, 180.
Metals, Crystallisation of Non-Ferrous, 243.
Metal, Talk on Cylinder, 385.
Metal Thieves, 14.
Methods of Production in a Modern Malleable Iron Foundry, Some, 7.
Methods of Testing Calcium Carbide, 163.
Mills, Cold Blast Iron for Mortar, 110.
Mixtures, Notes on Oil Sand, 119.
Mortar Mills, Cold Blast Iron for, 110.
Moulding Boxes, Foundry, 347.
Moulding by Sand-Slinger Machine, 242.
Moulding, Design and, 384.
Moulding, Machine, 11.
Moulding Machine, Britain's Largest Jar-Ram Squeeze, 326.
Moulding Sands, 162.
Moulding Sands, Scottish, 262, 279.
Moulding, Some Experience in Practical, 185, 314.
Moulds by Sand-Slinger, Ramming, 221.

N

Natal, Blast-Furnace Practice in, 319, 337.
National Federation of Iron and Steel Manufacturers, 292.
Newcastle Founders Visit South Shields, 323.
Newcastle Foundrymen Visit Marley Hill Coke Ovens, 353.
New Method of Making Cast-Iron Pipes, 412.
Nickel and Chromium on Cast Iron, Influence of, 100.
Nickel-Chrome Alloys, Welding, 310.
Nickel, Deposition of, 10.
Nickel in Cast Iron, 255, 274.
Nickel on Iron-Carbon-Silicon Alloys Containing Phosphorus, Influence of, 315, 339.
Nickel, Some Applications of, 183.
Nickel Steels, with Special Reference to the Influence of Manganese, Properties of, 362.
Nitrated Chrome Steel Cylinders, 314.
Non-Ferrous Industry, Research Problems in the, 165, 377.
North-East Coast Foundrymen Visit Blast-Furnace Plant, 29.
Note on Marine Patternmaking, 174.
Notes on Heat and Acid Resisting Pig-Irons, 76.
Notes on Iron Foundry Practice, 75.
Notes on Oil Sand Mixtures, 119.

O

Obituary, 50, 68, 86, 104, 122, 140, 176, 188, 232, 241, 268, 281, 294, 324, 346, 380, 400, 418, 482.
Observations on Research in Industry, Some, 394.
Oil-Fired Reverberatory Furnace for Melting Light Alloys, 31.
Oil, Practical Experience of Firing Refractory Materials with, 198.
Oil Sand Cores, Mechanical Aspect of, 299.
Oil Sand Mixtures, Notes on, 119.
Oxygen in Steel, An Improved Method for the Rapid Determination of Gases in Metals, Especially of the, 358.

P

Palmers' Shipbuilding & Iron Co., Ltd., Jarrow, 29.
Pan-Posset, 482.
Patternmaking, 38.
Patternmaking, Discussion on, 73.
Patternmaking, Note on Marine, 174.
Patterns, Handling, 30.
Pattern Shop, Machinist in the, 13.
Patterns Horizontally, Sweeping Loam Cores and, 32.
Patterns, Puzzle in, 66.
Payment, Grading the Job to Ensure Equitable, 457.
"Perlit," German Licensees, New, 366.
Permanent Magnet Steel, 24.
Personal, 18, 34, 50, 68, 86, 104, 140, 158, 174, 192, 212, 232, 250, 288, 308, 324, 342, 358.
Philadelphia Convention of the A.F.A., Programme for the, 144.
Phosphorus, Resistance to Wear of Cast Iron Containing, 25.
Pig-Iron, American Duty on, 148.
Pig-Iron, Foundry, 153.
Pig-Iron in Natal, Manufacture of, 284.
Pig-Iron Output in 1927, American, 297.
Pig-Irons, Notes on Heat and Acid-Resisting, 76.
Pipe after Long Service, Condition of Steel, 182.
Pipes at the "New" Works, Making Cast Iron, Staveley Coal & Iron Co., Ltd., 129.
Pipes, New Method of Making Cast Iron, 412.
Pipes, Protective Coatings for, 32.
Portable Foundry and Patternshop Machines, 252.
Potted Wisdom, 93.
Practical Experience of Firing Refractory Materials with Oil, 198.
Presidential Address to the Institute of Metals, 169.
President of the F.T.E.S.A., 318.
Problems, Some Furnace, 378.
Production of Some Important Grey-Iron Castings, 411.
Professor Turner Testimonial Fund, 117.
Programme for the Philadelphia Convention of the A.F.A., 144.
Propeller for the R.M.S. "Mauretania," New, 464.
Properties of Blast-Furnace Coke, 188.
Properties of C.I. at Low Temperature 298.
Properties of Nickel Steels with Special Reference to the Influence of Manganese, 362.
Prudent Speculation, 164.
Pulleys and Gear Blanks, Moulding and Casting of Small, 205.
Pulverised Fuel, 348.

R

Rail Conditions of Carriage, 372.
Rail Rates Affecting the Foundry Industry, Changes in, 466.
Railway Rates, Rumoured Reduction in, 282.
Railways, Iron and Steel Industry and the, 127.
Railway Wagon Works, Self-Contained, 95.
Ramming Moulds by Sand Slinger, 221.
Ram or Not to Ram? 94.
Random Shots, 2, 28, 42, 60, 72, 90, 120, 126, 146, 162, 180, 198, 216, 241, 255, 272, 292, 312, 329, 348, 366, 386, 404, 422, 446, 470.
Reconstruction of Old Foundries, 242.
Record Repair Job, 321.
Refractories, Cupola, 367.
Refractories for Iron Foundries, Selection and Use of, 43.
Research Activities Outlined, Non-Ferrous, 165.
Research Developments in Non-Ferrous Metallurgy, 180.
Research in Industry, Some Observations on, 394.
Research Problems in the Non-Ferrous Industry, 377.
Research, Value of, 40.
Resistance of Cast Iron, Electric, 303.
Resistance to Wear of Cast Iron Containing Phosphorus, 25.
Restrictions! 330.
Restrict "Rush Orders" in the Foundry, 282.

XUM

Rolls, Chilled Iron, 259, 277, 295.
Rolls, High Chromium Cast-Iron, 94.
"Rush Orders" in the Foundry, Restrict, 282.

S

Safeguarding of Industries, 464.
"Safety First" in Industry, 217.
Sand-Blasting Equipment, Example of Modern, 152.
Sand, Cohesibility of Rammed, 445.
Sand-Mixing Machine Demonstration, 2.
Sand or New, Old, 93.
Sand-Slinger Machine, Moulding by, 242.
Sand Slinger, Ramming Moulds by, 221.
Sands, Scottish Moulding, 262, 279.
Sands, Testing Foundry, 348.
Scabbing: Cause and Effect, 93.
Science Done for the Foundry? What Has, 414
Scottish Moulding Sands, 262, 279.
Sea Sand Cores, 145.
Selection of Pig-Irons and Similar Raw Materials Used in the Manufacture of Grey-Iron Castings, 149.
Seventeenth Century Casting, 244
Shoot, Cast Iron, 6.
Shinkage Holes in Small Grey-Iron Castings, 55.
Slag, 174.
Slow-Motion Controllers for Foundry Cranes and Hoists, 117.
Sodium on the Mechanical Properties of Aluminium Copper Alloys. 204.
Southern Foundries, 237.
Spanish Foundry Congress, 76, 293.
Sponge Iron from Ferrous Sand in Japan, Making, 64.
Staffordshire Iron and Steel Institute Annual Dinner, 112.
Stainless Steel, Welding of, 482.
Standardisation and Simplification, Development of, 368.
Staveley Coal and Iron Company, Limited, Making Cast-Iron Pipes at the "New" Works, 129.
Steel and Safeguarding, 380.
Steel at Various Temperatures, Yield Point in, 91.
Steel Casting, Interesting, 294.
Steel for Foundry Use, Electro, Metallurgy of, 61.
Steel Foundry Practice, Variables in, 407, 436.
Steel, Permanent Magnet, 24.
Steel, Welding of Stainless, 482.
Steels with High Nickel Content, 40.
Strength of Cast Iron at Very Low Temperature, 124.
Strip Casting, 3, 27
Structural Composition of Cast Iron by Weight and Volume, 224.
Students Visit Industrial Area, Paris Foundry, 404.
Survival, Unique, 368.
Sweeping Loam Cores and Patterns Horizontally, 32.

T

Tanks, Cast-Iron, 216.
Temperatures, Properties of C.I. at Low, 298.
Temperatures, Yield Point in Steel at Various, 91.
Test-Bar Problem and Some Recent Developments, 201.
Testing Calcium Carbide, Methods of, 163.
Testing Foundry Sands, 548.
Tests for Cast Iron and Test-Bar Problem, 228.
Tests on Malleable Cast-Iron, Comparative, 332.
Theoretical and Practical Training of the Foundry Apprentice, 530
Theory or Practice in Grey-Iron Foundry, 433, 461.
Tin in Spain, 118.
Tin Situation, Mr. J. H. Thomas on, 54.
"Titanite," 378.
Trade Talk, 18, 34, 50, 68, 86, 104, 122, 140, 158, 176, 194, 212, 232, 250, 268, 288, 308, 324, 342, 362, 380, 400, 418, 440, 464, 482.
Training, British Facilities for Foundry, 428.
Training the Young Foundryman, 245.
Truck with Automatic Elevating Platform, Two-Ton Electric, 288.
Two-Ton Electric Truck with Automatic Elevating Platform, 288.
Tyneside Foundry to Extend, 446.

U

United Steel Company of Germany, 228.

V

Vanished Industry, 109.
Variables in Steel Foundry Practice, 407, 436.

W

Wages, Foundry, 366.
Welding Nickel-Chrome Alloys, 310.
Welding of Stainless Steel, 482.
Wisdom, Potted, 93.
Word of Mouth, 388.
Works, Self-Contained Railway Wagon, 95.

Y

Yield Point in Steel at Various Temperatures, 91.

AUTHORS INDEX.

A

A. S. (Bolton), 241.
Adamson, E., 90, 126, 180.
Allin, Percy Fox, 330, 428.
Allison, Archibald, 259, 277, 295.

B

Bailey, G. L., 180.
Batson, R. G., 127.
Beck, A. J., 7.
Bengough, G. D., 80.
B. J. C., 146.
Bradley & Foster, Ltd., 180.
Braunholtz, W. T. K., 188.
Briscoe, H. V. A., 188.
Brown, Gerald, 42.
Butters, F., 93.

C

Canameras, Joseph, 348.
"Celsian," 132.
Claus, W., 204.
Cook, F. J., 97, 385.

D

Dennison, W. E., 224.
Desch, Professor C. H., 243.

E

Edgar, James, 32, 174.
Edwards, F. C., 219, 384.
Evans, W. T., 423, 454.
Everest, Arthur B., 255, 274, 315, 339.
Every, J. H., 109.

F

Fallon, John, 181.
Fares, C. H., 10.
Ferrer, Joaquin Figueras, 387.
Fowler, Robert, 153.
Fowler, T. B., 184.
Fox, E. J., 217.
Friend, J. Newton, 180.
Frost, G. E., 366.
Fugo, Y., 405.
Furmston, A. C., 38, 73.

G

Gale, B., 93.
Gill, Frederick, 93.
Giullaume, M., 40.
Gough, H. J., 349, 373.
Guillet, Léon, 314.
Goederitz, F., 204.
Goodger, A. H., 236.
Greenhalgh, Arthur, 306.
Grove-Palmer, Fred., 310.

H

Hallamore, J. C., 94.
Hanson, D., 315, 339, 442.
Hardy, Clement A., 242.
Hay, Dr., 147.
Hessenbruch, W., 358.
Heywood, H., 348.
Hiscox, W. J., 282, 394, 457.
Historian, 444.
Hogg, J., 347.
Holgate, J. E., 284, 319, 337.
Holland, W., 367.
Howell, Leonard, 72.
Hudson, F., 262, 279.
Hurren, F. H., 301.
Hurst, J. E., 30, 226, 240, 313.

J

J M., 30.
Jervis, J. Johnstone, 481.
Jones, J. A., 362.

K

Kayser, J. Ferdinand, 94.
Key, A. L., 64.
Kerr, A., 230.
"Kilowatt," 427.
Kirby, A. D., 126.
Kohlenstoffe, 22.
Koritta, 191.

L

Lambert, Wesley, 41.
Lamoureux, Ivan, 445.
Littlehales, H., 66, 132.
Longden, E., 411.
Longden, J., 126, 205.
Lunt, C. T., 22.

M

Makemson, T. 245.
Mancunian, 299.
"Marksman," 2, 28, 42, 60, 72, 90, 120, 126, 146, 162, 180, 198, 216, 241, 254, 272, 292, 312, 329, 348, 366, 386, 404, 422, 446.
Marshall, W., 66, 134.
Matsuda, Tsutomu, 180.
Melmoth, F. A., 407, 436.
Model Engineer, 162.
Molyneux, W. J., 11.
Mortimer, George, 431, 437, 458.
Muir, J., 91.
Murphy, A. J., 349, 373.

N

Newman, W. A. C., 3, 27.
Newson, J. E., 52.
Nicholls, M. E., 10.
"Nick," 430.
Nekryty, S. S., 332.
Norbury, A. L., 180.

O

Oberhoffer, P., 358.
"Onlooker," 14, 148, 278, 330, 388.

P

Paige, J. F., 162.
Pardun, C., 298.
Parker, J. W., 372, 466.
Peace, A. E., 423, 454.
Pearce, J. G., 201, 228.
Pennington, D. G., 99.
Pinsl, H., 303.
Poole, W. H., 395, 414.
Practicien, 174, 216.
Presswood, C., 43.
Primrose, H. S., 81.

Q

Quadrat, O., 191.
Quicke, Jos. H., 254.
"Quo Vadis," 2.

R

Rawlinson, W., 135.
Richardson, R. J., 61.
Richman, A. J., 90.
Ridsdale, C. H., 444.
Ridsdale, N. A., 444.
Rogers, F., 72.
Rosenhain, W., 169.
Russell, P. A., 55.

S

Schiffer, E., 88.
"Seestu," 22.
Sharpe, Daniel, 221, 242.
Shaw, Ben, 13, 32, 394.
Shaw, John, 422, 433, 444, 461.
Shepherd, H. H., 442.
Simons, Eric N., 14, 102, 128, 156, 183, 218, 248, 273, 341.
Smith, A. J., 155, 378.
Smith, Arthur, 77, 149.
"Sprig," 6, 72, 145.
Stephenson, Arthur, 163.
Stevenson, Edmund, 93.
Stobie, Victor, 23.
Styles, W. E., 360.
Sutcliffe, A., 185, 314.

T

Thomas, Herbert, 90.
Thompson, F. C., 405.
Tudio, 76.
Tupholme, C. H. S., 300.

U

Udale, S. M., 313.

V

"Valliste," 138.
Vierhaus, E., 298.

W

Walton, R. R. F., 319, 337.
West, Frank, 198.
West, Walter, 42.
Whitaker, Ellis, 189.
Winterton, H., 54.
Wintle, W. R., 475.

Y

Young, Horace, 22.